(AQ-0006) Proposed Road Treatment Explanations

Road/stream crossings can also be a major source of sediment to streams resulting from channel fill around culverts and subsequent road crossing failures (Furniss and others 1991). Plugged culverts and fill slope failures are frequent and often lead to catastrophic increases in stream channel sediment, especially on old abandoned or unmaintained roads (Weaver and others 1987).

- Activities are needed to implement the project (e.g. maintenance, reconditioning, reconstruction, temporary road construction). Approximately 3.9 miles of temporary road is proposed. These temporary roads must be decommissioned no later than three years after project completion. No permanent roads would be constructed.

- Road Maintenance: Road maintenance is typically performed on roads used for harvest activities and log haul to minimize erosion and provide proper drainage. The existing templates of the road are typically safely passable by vehicles and require little work for safe log haul. Road maintenance work consists of surface reshaping and blading, typically light roadside brushing, installation of drainage dips and ditch, repairing small slides and slumps and culvert maintenance. Surface reshaping, installation of drainage dips and functioning ditches and repairing small slides and slumps and culvert maintenance can greatly reduce potential for sedimentation and/or erosion and rutting from roads and would likely improve existing watershed conditions and water quality to project area streams. Cleaning of ditches will only be done where it will reduce potential for erosion and damage to road beds.

- Road Improvements: Road improvements are typically performed on roads that require more work than road maintenance to bring up to a safe standard for log haul and vehicular passage. Roads that require improvements may have some drainage and slope/sluff issues that make passage difficult. These roads may also have thicker vegetation on the shoulders or growing within the road prism. Activities may include grading and shaping of the road surface, cleaning and reshaping ditches, catch basins and culvert inlets/outlets to achieve positive drainage; replacement or new installations of culverts, repairing soft or unstable roadbed, roadside brushing or clearing and grubbing, minor cut slope and fill slope stabilization, surface gravel placement, and surface compaction. Improving drainage (proper sized culverts and added dips) and unstable road bed can reduce potential for road failure, sedimentation, erosion and rutting.

- Road Decommissioning: Road decommissioning can be done in two ways, through road obliteration or abandonment. Descriptions of each are as follows.

    - Road obliteration would include recontouring of the road template. All perennial and intermittent stream channel crossings (culverts) would be removed. Disturbed soils would be revegetated with local native transplants and/or seed. Decommissioning roads by obliteration would directly improve soil conditions by decompacting soils and adding wood and other organic matter to the existing road surface. Slope stability and hydrologic

function would improve, reducing the potential risk of mass erosion from culvert or fill failures.

- If a road is currently revegetated and stable with no culverts, it may be abandoned. Roads proposed for decommissioning by abandonment are often ridgetop roads on gentle slopes with few, if any, culverts and where road surveys show existing hydrological stability and minimal risk of soil erosion or mass failure. These roads generally have a narrow disturbed width, have adequate plant and organic cover, and have cut and fill slopes of no more than two feet in height. Abandonment would leave the road in place but inaccessible to any vehicle use and would eventually become naturally rehabilitated.